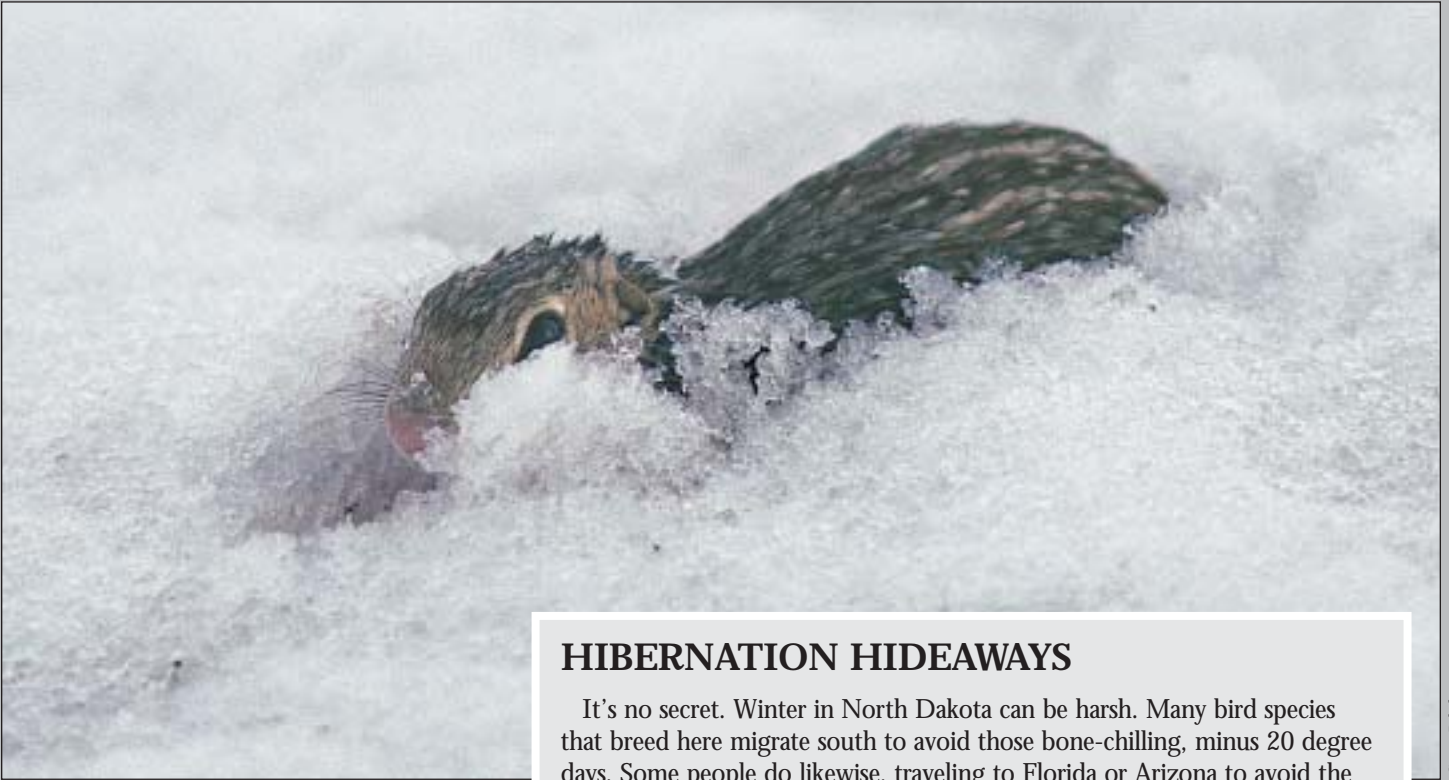


A CLOSER LOOK

By Sandra Hagen



Thirteen-lined ground squirrel.

HIBERNATION HIDEAWAYS

It's no secret. Winter in North Dakota can be harsh. Many bird species that breed here migrate south to avoid those bone-chilling, minus 20 degree days. Some people do likewise, traveling to Florida or Arizona to avoid the cold. But what about those creatures – some mammals and amphibians, for instance – that don't cheat winter by trekking long distances to warmer climates? Do they hibernate, or simply hunker in good cover when tough winter weather embraces the state. Well, it depends on the critter.

Hibernation for mammals is an intense dormancy where the animal's body temperature remains at 35.6-41 degrees Fahrenheit for several weeks during winter. In North Dakota, Richardson's and thirteen-lined ground squirrels, and several other small rodents, truly hibernate, entering a state of intense dormancy sometime in late fall. While there are short periods of arousal when animals may eat, drink or defecate, it's not until spring when they fully wake.

The half-ounce little brown bat may hibernate in North Dakota, but most other bats migrate south. Mammals larger than about 12 pounds cannot hibernate because too much energy would be required for them to raise body temperatures back to normal. Instead, they enter into winter lethargy, or periods of long naps. Raccoons and tree squirrels are nappers. On warm winter days, fox squirrels arouse from their slumber to search for food.

Aquatic frogs, like the leopard frog that spends most of its life in or by water, hibernates under water, lying on the bottom of a stream or wetland. A common misconception is that these frogs burrow under the mud. But if that were true, suffocation would follow.

Terrestrial frogs, like the wood frog or American toad, spend most of their lives on land no matter the time of year. Wood frogs seek deep crevices in logs or rocks as their hibernation hideaways, while most toads dig a burrow into the soil below the frost line. These creatures keep from freezing vital organs thanks to a special brand of amphibian antifreeze containing high concentrations of glucose. Although ice crystals may form in the animals, they do thaw by the time southern migrants, jazzed from a warm winter spent elsewhere, return to North Dakota.

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